

REMARKS

A. Claim 31 Is Definite

Applicants have amended the first instance of “the instrument” in claim 31 to recite “an instrument,” and submit that the indefiniteness rejection is overcome.

B. Claims 1, 6, 11, 12, and 14 Are Patentable over Berlin and Mulligan

Claims 1, 6, 11, 12, and 14 stand rejected as being obvious over U.S. Patent No. 2,723,554 to Berlin *et al.* (Berlin) in view of U.S. Patent No. 3,355,932 to Mulligan (Mulligan). Applicants traverse.

1. Independent Claim 1

Claim 1 is directed to a method comprising: providing a cavity having at least one opening over which a piece of sealing material is positioned, the cavity containing liquid; puncturing the piece of sealing material with an instrument, thereby creating a sealing material opening for a period of time; applying a vacuum to the cavity; and noting a cavity pressure approximately when a first bubble forms around gas entering the liquid through the sealing material opening from outside the cavity. The Office asserts that Berlin’s only shortcoming with respect to independent claim 1 is that it “does not teach applying a vacuum to create the pressure differential[.]” Action at 3. This is not correct. Berlin teaches puncturing disk X and then eventually introducing “fluid under pressure” into chamber 27. The chamber is empty when punctured. In contrast, claim 1 recites “puncturing the piece of sealing material[.]” which draws antecedent basis for “the piece of sealing material” from “providing a cavity having at least one opening over which a piece of sealing material is positioned, the cavity containing liquid[.]” Thus, the claimed puncturing is of a sealing material positioned over at least one opening of a cavity *containing liquid*. Furthermore, there is nothing in Berlin suggesting the desirability or feasibility of altering Berlin’s approach of *first* puncturing disk X, *then* filling non-sealed interior 75 with water, and *then* introducing fluid under pressure into cavity 27 such that bubbles

in the water in interior 75 can be observed coming from *air* escaping from cavity 27 through disk X due to a loss of pressure within cavity 27 through the opening of disk X.

Mulligan concerns gas-pressure testing of waterproof watches. The portion of Mulligan cited by the Office discloses placing a watch case C in a transparent glass receptacle 92 that is partially filled with water, applying a vacuum to the receptacle, and detecting leaks in the watch case when air bubbles are noted leaking into the fluid from the watch case. The only cavity that possibly has an opening over which a piece of sealing material is positioned in the cited vacuum test portion of Mulligan is the watch case; tank 91 has no such sealing material and thus could not serve as the claimed cavity. The Office cites to the apparatus in FIG. 12 of Mulligan as a “cylindrical cavity having a sealed top opening[,]” but washer seal 20 is not covering an opening, as claimed. Finally, in addition to the fact that tank 91 cannot serve as the claimed cavity, the integrity of the watch case is tested by placing the watch case *within* the liquid in tank 91 such that the bubbles that enter the tank come from *within* the tank, rather than *outside* the tank (as claimed).

The Office’s asserted motivation to combine Merlin with Mulligan—“to simplify apparatus by using the same cavity for both liquid vessel and pressure vessel”—is belied by the differences in the two references set forth above. For example, neither reference suggests putting liquid into Merlin’s chamber 27 before puncturing disk X because Merlin deals with the detection of fluid leaking *out of* chamber 27 (not *into it*), and because Mulligan does not deal with puncturing any sealing material. Furthermore, neither reference teaches or suggests the step of noting a cavity pressure approximately when a first bubble forms around gas entering the liquid through the sealing material opening *from outside the cavity*. For at least these reasons, the obviousness rejection of claims 1, 6, 11, and 12 is overcome and should be withdrawn.

2. Independent Claim 14

Independent claim 14 is directed to a method of evaluating the self-sealing nature of a piece of material. The method comprises piercing a piece of material with an instrument, the piece of material being positioned over an opening to a cavity containing liquid, the piercing creating a puncture opening; retracting the instrument from the piece of material; applying a vacuum to the cavity; and noting a cavity pressure approximately when a first bubble of gas from outside the cavity forms within the liquid near the puncture opening. The obviousness rejection of this claim is overcome for substantially the same reasons provide above with respect to claim 1.

C. Claims 2-4 Are Patentable over the Asserted Combination

Claims 2-4 stand rejected as being obvious over Berlin in view of Mulligan and U.S. Patent No. 4,534,208 to Macin *et al.* (Macin). Applicants traverse. These claims depend from claim 1, which is patentable over Berlin in view of Mulligan for the reasons set forth above. Macin does not cure the deficiencies of the asserted Berlin-Mulligan combination. Therefore, the rejection is overcome and should be withdrawn.

C. Claims 5, 7-9, and 13 Are Patentable over the Asserted Combination

Claims 5, 7-9 and 13 stand rejected as being obvious over Berlin in view of Mulligan and U.S. Patent No. 6,103,148 to Su *et al.* (Su '148). Applicants traverse. These claims depend from claim 1, which is patentable over Berlin in view of Mulligan for the reasons set forth above. Su '148, which Applicants do not concede is analogous art (there is no mention of testing that Applicants can find) does not cure the deficiencies of the asserted Berlin-Mulligan combination. Therefore, the rejection is overcome and should be withdrawn.

E. Claims 15, 19-22, and 26 Are Patentable over Keita and Su '220

Claims 15, 19-22 and 26 stand rejected as being obvious over U.S. Patent No. 6,416,689 to Keita *et al.* (Keita) in view of U.S. Patent Application Publication No. US2002/0047220 to Su (Su '220). Applicants traverse.

Claim 15 is directed to a method comprising providing a cavity defined by at least a portion of a mold and a closure member attached to the portion of the mold, the portion of the mold being oriented substantially vertically and having a top and a bottom, and a sealing material being positioned near the bottom and attached to the closure member; puncturing the sealing material and the closure member with an instrument near the bottom, the puncturing creating an opening in the sealing material; and introducing a polymerizable composition into the cavity through the instrument. Neither Keita nor Su '220 teach or suggest puncturing *both* a sealing material *and* a closure member. Keita teaches injecting a polymerizable composition through a pipe and into cavity 14 through valve 15, which is disposed *in an opening* in closure member 13. Su '220 only teaches inserting a filling needle through a closure member, *see, e.g.*, paragraph [0047], not through a closure member *and something else*, as recited in claim 15. Thus, the rejection is overcome and should be withdrawn.

Furthermore, not only do the references fail to teach or suggest all of the limitations of the claim, there is no reasonable basis for the asserted combination. The Office asserts that the valve of Keita should be eliminated:

The motivation to [modify Keita by the filling means of Su '220] would have been *to avoid leaving the valve imprisoned in the cured material and having to remove it by edge machining.*

Action at 6-7 (emphasis added). However, the valve of Keita is part of the invention. *See, e.g.*, Keita's claims, which each include a check valve. Thus, it does not make sense to eliminate it. *See Ex parte Bakshi*, Appeal No. 2001-2542, Slip. Op. at 7-8 (non-precedential) (reversing rejection because proposed manner and motivation for combination "does not make sense").

Moreover, eliminating the valve would fundamentally change the principle of operation of Keita, which is improper. *In re Ratti*, 270 F.2d 810, 813, 123 USPQ 349, 352 (CCPA 1959). For these additional reasons, the rejection should be withdrawn.

F. Claims 16 and 17 Are Patentable over the Asserted Combination

Claims 16 and 17 stand rejected as being obvious over Keita and Su '220 and further in view of Berlin and Mulligan and Macin. These claims depend from claim 15, which is patentable over Keita and Su '220 for the reasons set forth above. Neither Berlin, Mulligan, nor Macin cures the deficiencies of the asserted Keita-Su '220 combination. Moreover, claims 16 and 17 are each patentable over the 5-reference combination because the method of claim 1 is patentable over Berlin, Mulligan, and Macin, and neither Keita nor Su '220 cures their deficiency. The rejection is overcome and should be withdrawn.

G. Claims 18, 23, 30, and 31 Are Patentable over the Asserted Combination

Claims 18, 23, 30, and 31 stand rejected as being obvious over Keita and Su '220 and further in view of Su '148. Claims 18, 23, and 30 depend from claim 15, which is patentable over Keita and Su '220 for the reasons set forth above. Su '148 does not cure the deficiencies of the asserted Keita-Su '220 combination. Therefore, the rejection of these dependent claims is overcome and should be withdrawn.

Claim 31 is directed to a method for making a lens that comprises, in relevant part, “puncturing the sealing material and the closure material[,]” which is not taught or suggested by the Keita-Su '220 combination (as set forth above), and which is not cured by Su '148. Therefore, the rejection of independent claim 31 is overcome and should be withdrawn.

H. Claims 24 and 25 Are Patentable over the Asserted Combination

Claims 24 and 25 stand rejected as being obvious over Keita and Su '220 and further in view of U.S. Patent Application Publication No. US2004/0021238 to Reed *et al.* (Reed). These claims depend from claim 15, which is patentable over Keita and Su '220 for the reasons set

forth above. Reed does not cure the deficiencies of the asserted Keita-Su '220 combination. Therefore, the rejection is overcome and should be withdrawn.

I. Claims 27-29 Are Patentable over the Asserted Combination

Claims 27-29 stand rejected as being obvious over Keita and Su '220 and further in view of U.S. Patent Application Publication No. US2003/0214060 to Wires (Wires). These claims depend from claim 15, which is patentable over Keita and Su '220 for the reasons set forth above. Wires does not cure the deficiencies of the asserted Keita-Su '220 combination. Therefore, the rejection is overcome and should be withdrawn.

J. Claims 32 and 33 Are Patentable over the Asserted Combination

Claims 32 and 33 stand rejected as being obvious over Keita and Su '220 and Su '148 and further in view of Berlin and Mulligan and Macin. These claims depend from claim 31, which is patentable over Keita, Su '220, and Su '148 for the reasons set forth above. Neither Berlin, Mulligan, nor Macin cures the deficiencies of the asserted Keita-Su '220-Su '148 combination. Moreover, claims 32 and 33 are each patentable over the 6-reference combination because the method of claim 1 is patentable over Berlin, Mulligan, and Macin, and neither Keita, Su '220, nor Su '148 cures their deficiency. The rejection is overcome and should be withdrawn.